

REMARKS

Applicant requests reconsideration and withdrawal of the Final Rejection by the Examiner. Allowance of the application is requested.

Claims 3 and 4 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by United States Patent No. 5,604,387 to Cheyne. Reconsideration and withdrawal of the rejection is requested.

Applicant stated in its previous response that "that power supply and its control thereof as disclosed in Cheyne functions differently to that of the presently claimed invention". Applicant submits that, it is not only that the prior art supply *functions* differently than the invention defined by the claims, but that the *structure* of the prior art power supply differs from the claimed power supply.

The following is a detailed explanation of why the structure of Cheyne is different to the invention as claimed, and why Cheyne is not capable of performing the claimed functionality.

Cheyne discloses a method and apparatus for obtaining a low voltage power supply (between ground 2 terminal 12) for a load 15a from the current which flows through a motor winding 4 in the normal operation of a motor. This is achieved by controlling the state of a switch 7 which, if turned off, diverts the winding current to charge capacitor 10 or, if turned on, causes the winding current to bypass capacitor 10. Switch 7 is controlled by a circuit 18b so that should the voltage across capacitor 10 drop below a predetermined level, then switch 7 will be turned on to recharge capacitor 10 thereby maintaining the voltage at terminal 12 at a desired level.

As mentioned at line 5 on page 8 of the present application, the above-described method and apparatus for obtaining a low voltage power supply for a washing machine are

incorporated within the machine described in this application. In Figure 4 of this application, there are four commutation transistors ( $A^+$ ,  $A^-$ ,  $B^+$  and  $B^-$ ); whereas in Figure 1 of Cheyne, there are only two commutation transistors 5 and 6 shown. Accordingly, Cheyne's two commutation transistors equate to, for example, the  $A^-$  and  $B^+$  transistors as mentioned at line 24 of page 8 of the present application. The circuit 18b of Cheyne is not shown in Figure 4 of the present application nor is switch 7. However, capacitor 10 of Figure 1 of Cheyne corresponds to the capacitor shown in the lower right-hand corner of Figure 4 of the present application. Accordingly, Cheyne's latching circuit would be connected around that capacitor in Figure 4 of the present application as would switch 7 of Cheyne.

The circuit in Figure 4 of the present application labeled "hardware lock off" is not included in the machine described in Cheyne. This "hardware lock off" circuit includes the following structural features which appear in claim 3:

- an active switching device (TX2) connected across the input of a commutation device;
- a latching circuit which controls the active switching device; and
- a push button switch (SW1) for disabling the latching device.

In Cheyne, the buck converter (winding 4, commutation transistors 5 and 6 and commutating means 18a) is not enabled or disabled by a latching circuit as required by claim 3. There is no disclosure in Cheyne of enabling or disabling the buck converter. Presumably, therefore, Cheyne's buck converter is enabled whenever the machine is turned on. In Cheyne, there is no switch connected across the input of either of a commutation device.

In contrast, the claims provide a latching circuit (the "hardware lock off" circuit) capable of turning off one of the switching devices surrounding motor winding 15, thereby disabling the buck converter which saves power and reduces electro-magnetic emissions. In

the example shown in Figure 4, it is transistor A<sup>+</sup> which is capable of being switched off. As mentioned above, transistor A<sup>+</sup> corresponds to either of commutation transistors 5 or 6 in Cheyne.

Therefore, Applicant submits that Cheyne does not anticipate and does not render obvious claims 3 and 4. Reconsideration and allowance is requested.

In view of the above, Applicant respectfully submits that the claims of the application are allowable over the rejections of the Examiner. Should the Examiner have any questions regarding this Amendment, the Examiner is invited to contact one of the undersigned attorneys at (312) 704-1890.

Respectfully submitted,

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